

THIS IS UNEVALUATED INFORMATION 25X1

1. [redacted] take-off, sea level maximum and cruising powers with rpm
of M 11 D and M 11 K engines [redacted]

M 11 D Engines

Take-off maximum hp: 125
Take-off maximum rpm: 1600
Sea level maximum hp: not known
Cruising hp: 80
Cruising rpm: 1200
Ratio of propeller to crankshaft: 1:1

M 11 K Engines

Take-off maximum hp: 180
Take-off maximum rpm: 1800
Sea level maximum hp: not known
Cruising hp: 120
Cruising rpm: 1200

2.	
3.	lubricating oils are used with these engines

In spring and fall: MK type
In winter: MZS type
In summer: MS type

4. [redacted] type, diameter and number of blades of the propellers fitted to these engines [redacted]

M 11 D Engines

Type: Soviet manufactured
Propeller blades: wood
Number of blades: two
Diameter: two meters; fixed pitch

M 11 K Engines

Type: VISH; Soviet manufactured
Propeller blades: wood
Number of blades: two
Diameter: 1.80 m; automatic
constant speed pitch control

5.

M 11 D engines: UT-2 and PO-2 aircraft

M 11 K engines: YAK-18 and KANYA (Fieseler storch) aircraft

6. ratio of supercharger drive speed to the crankshaft on the
ASH-21 Aero engine

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The ratio is 62:6

7. [] type, diameter and number of blades of the propeller []

Type: VISH

Diameter: 3.20 m

Propeller blades: metal

Number of blades: three

Pitch control: automatic, constant speed; oil pressure, R-7 type;
oil pressure increased to 23 kg/cm² from 6 kg/cm² in order to
change pitch.

8. [] types of lubricating oils are used []

In spring and fall: MK type

In winter: MZS type

In summer: MS type

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the following information on the VK-105 Aero engine.

HP

Take-off: 1300

Normal climb (in both supercharge gears): 1300 (in 1st gear at 3000 m
altitude); 1000 (in 2nd gear at 4500 m altitude)

Maximum cruising power: 1000

Combat power: 1300

RPM

Ratio: 2 (crankshaft) to 1 (propeller)

Take-off: 2600 (crankshaft)

Normal climb: 2600 (1st gear); 2300 (2nd gear)

Maximum cruising power: 2000 (crankshaft)

Combat power: 2600 (crankshaft)

Height for given power:

3000 m altitude - 1300 hp

4500 m altitude - 1000 hp

Boost Pressure

Take-off: 1100 Hg mm

Normal climb: 1000 Hg mm (in both supercharge gears)

Maximum cruising power: 900 Hg mm

Combat power: 1100 Hg mm

Fuel consumption

Take-off: 230 gr per hp per hour

Normal climb: not known

Maximum cruising power: 210 gr per hp per hour

Combat power: probably 230 gr per hp per hour

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12. [redacted] types of propellers are fitted to these engines [redacted]

VK-105 Aero Engine

Propeller type: VISH-105

Blades: three; metal

Pitch control: automatic, constant speed; oil pressure, R-7 type.
(VK-105 engines are equipped with six carburetors, one for two cylinders)

13. [redacted]

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[redacted] the VK-107 [redacted] was used in the YAK-9 and the PE-2.

14. [redacted] air compressor, generator and other auxiliary units [redacted]

[redacted] The compressor to crankshaft rpm ratio was 62:6 in 1st gear, 85:8 in 2nd gear. The compressor was equipped with a Polikhovsky automatic air intake control valve. The generator was 550 watts, 24 volts. The magnetoes were BSM type. This engine had six carburetors, one for every two cylinders. I can give the following information on the performance of the VK-107 engine.

HP:

1650 at 5500 m altitude with compressor in 1st gear at 3100 rpm (crankshaft)

1200 at 10000 m altitude, with compressor in 2nd gear at 2800 rpm (crankshaft)

1500 at 7000 m altitude, with compressor in 2nd gear at 3000 rpm (crankshaft)

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